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Sumiyo OKADA et al.

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APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

ADDRESS TO: **Assistant Commissioner for Patents**
Box Patent Application
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1. [X] Fee Transmittal Form
2. [X] Specification, Claims & Abstract ..... [Total Pages: 26]
3. [X] Drawing(s) *(35 USC 113)* ..... [Total Sheets: 9]
4. [X] Oath or Declaration ..... [Total Pages: 4]
   a. [X] Newly executed (original or copy)
   b. [ ] Copy from a prior application (37 CFR 1.63(d)) *(for continuation/divisional with Box 17 completed)*
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      Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
5. [ ] Incorporation by Reference (usable if Box 4b is checked)
   The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 4b, is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein.
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ACCOMPANYING APPLICATION PARTS

8. [X] Assignment Papers (cover sheet & document(s))
9. [ ] 37 CFR 3.73(b) Statement *(when there is an assignee)* [ ] Power of Attorney
10. [ ] English Translation Document *(if applicable)*
11. [ ] Information Disclosure Statement (IDS)/PTO-1449 [ ] Copies of IDS Citations
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13. [X] Return Receipt Postcard (MPEP 503) *(Should be specifically itemized)*
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18. CORRESPONDENCE ADDRESS

STAAS & HALSEY LLP
Attn: J. Randall Beckers
700 Eleventh Street, N.W., Suite 500
Washington, DC 20001

Telephone: (202) 434-1500
Facsimile: (202) 434-1501

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Message Display Method and Information Exchange System and Storage Medium

BACKGROUND OF THE INVENTION

TECHNICAL FIELD OF THE INVENTION

The present invention relates to an information exchange system in which a plurality of users can transmit and/or receive messages via a network, and in particular, to an improvement of a message displaying method.

RELATED ART

In recent years, with the advancing technology in communication networks, information exchange systems, in which multiple users can transmit and receive messages with each other using the same network, is widely used. An example of an information exchange system is a chat system. In this example, multiple users have a common communication area (i.e., the same network) by utilizing an IRC (RFC 1459) protocol, etc. in order to transmit and receive messages among one another. Hence, users in the common communication field can observe the contents of messages originated by themselves, as well as the contents of messages transmitted by other users in the same communication field. That is, information exchange can occur while confirming messages transmitted from multiple users who are a part of the same communication field.

During information exchange in, for example, a chat system, a user who is participating in the communication does not always have to proffer his/her opinion. However, the user is only

allowed to participate in messages transmitted from other users when actively a part of the common communication field. An application interface for a chat system is provided in, for example, (Japanese Published Unexamined Patent Application No. HEI 10-154117. A communication field in which users proffer therein opinions, and a communication field in which users only refer to messages of other users, can be displayed for identification. Messages in the "opinion" communication field can be transmitted and received while monitoring the contents of messages issued in the "refer" communication field.

The '117 reference discloses that the "opinion" field communication is defined as a main-channel, and the "refer" communication is defined as a sub-channel. Contents of the opinions issued on the main-channel and sub-channel can be identified through respective displays, on different display areas. An opinion area, transmitting messages to the main-channel, is displayed near the contents of the main-channel. Contents of messages issued in the channel designated by users, on the other hand, are displayed in the sub-channel. The channel designated here can be designated in a plurality of channels.

In the chat system described above, conversation from person to person is also possible. However, it is necessary to provide an individual common communication field (one common network) for each conversation partner. Additionally, a system may be provided wherein a user of a chat system has the ability to utilize

various services that have been previously registered, thereby allowing various services to be used throughout the chat system. In order to transmit and receive requests and responses for these services, it is also necessary to participate in the common communication field.

Hence, the number of common communication fields (common networks or channels) increases per user, and the number of common fields designated for each reference will be increased depending on the number of conversations from person to person and the increase of services used throughout the common communication field. At present, the number tends to increase depending on the use of networks.

An increase in the number of common communication fields for reference purposes indicates that the amount of opinions displayed in the sub-channel area of the related art has also increased. Moreover, in the exemplified chat system, when different users are present on the main server, individual connections for each user are required. In this case, a plurality of windows for transmitting and receiving messages corresponding to the users are displayed, thereby narrowing the display area for manipulation of other applications.

SUMMARY OF THE INVENTION

It is therefore an object of the present invention to provide an interface which is flexible in use, and promotes efficiency at the time of transmitting a message to the common communication field in which users participate,

and particularly, for the purpose of proffering opinions while minimizing the display area, even when users are participating in a plurality of common communication fields.

The present invention focuses on a common communication field in which users participate for the purpose of proffering opinions and referencing. That is, users are able to confirm the contents of opinions issued in a specific communication field. In this regard, the system aids users, when the contents of the opinions displayed have easily manipulated contents in the common communications field.

The present invention also enables the display area to be reduced, for example, in a chat system, by providing a message display independently displaying the contents of messages transmitted and received in one or a plurality of common communication fields designated by a user. The present invention also enables issuance of opinions to the common communication field, to which such issuance of opinions is easily made, by instructing the opinion displayed on the message display.

The present invention provides an information exchange system in which a user terminal connected to a network can transmit and/or receive messages via the network. The system is characterized in that a user terminal can be connected to a plurality of networks, and has a message display area for displaying a message transmitted and/or received to/from each network. The system also acquires messages transmitted and/or received in a plurality of

networks, and displays the acquired messages, on a time series basis, independent of the messages for each of the other plurality of networks.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 illustrates the basic structure of the present invention.

Fig. 2 illustrates an example of an image displayed on the display.

Fig. 3 is an exemplary flowchart illustrating the contents of the process of the cooperation request transmitting means.

Fig. 4 is an exemplary flowchart illustrating the contents of the process of the request receiving means.

Fig. 5 is an exemplary flowchart illustrating the contents of the process of the notified message receiving means.

Fig. 6 is an exemplary flowchart illustrating the contents of the process of the display processing means.

Fig. 7 is an exemplary diagram (No. 1) illustrating a display image in the first embodiment for instructing a message transmission.

Fig. 8 is an exemplary diagram (No. 2) illustrating a display image in a first embodiment for instructing a message transmission.

Fig. 9 is an exemplary flowchart illustrating the contents of the process of the message transmission processing means.

Fig. 10 is an exemplary diagram (No. 1) illustrating a display image in the second embodiment for instructing a message transmission.

Fig. 11 is an exemplary diagram (No. 2)

illustrating a display image in the second embodiment for instructing a message transmission.

DETAILED DESCRIPTION OF THE INVENTION

A preferred embodiment of the information exchange system to which the present invention is applied will now be explained below.

Fig. 1 illustrates a basic structure of the present invention.

In this embodiment, a plurality of user terminals 10 are connected via a network 40, enabling mutual communication among them. A detailed structure is only illustrated for one of the user terminals. A minimum structure is illustrated for the other user terminals.

A user terminal 10 utilizes, for example, a chat system 30 to simultaneously transmit and/or receive messages to/from other user terminals 10 on a realtime basis. The chat system 30 includes, for example, a message receiving means 33 and a message transmitting means 34 for controlling message transmission and/or reception, respectively, as a basic function. The chat system 30 also includes a setting information storing memory 35, of which an operating condition is set, and a request receiving means 31 and a message notifying means 32 cooperatively functioning with the message display means 20. The request receiving means 31 executes processes based on requests transmitted from a cooperation request transmitting means 21 and a message transmission processing means 24 of the message display means 20. The message notifying means 32 transfers the message received by the message

receiving means 33 to the message display means 30.

The message display means 20 includes, for example, the cooperation request transmitting means 21, a notified message receiving means 22, a display processing means 23, a message transmission processing means 24 and the setting information storing memory 35.

The cooperation request transmitting means 21 transmits and/or receives the setting information required for operating the chat system 30 and message display means 20 at the same time. The notified message receiving means 22 receives a message transmitted from the message notifying means 32, of the chat system 30, and displays the message on the display apparatus 11 using the display processing means 23. The message transmission processing means 24 operates together with the chat system 30, when a user responds to a message including the contents of the message displayed by the message display means 20, or displays the interface to send the message directly.

Fig. 2 illustrates an example of a display image displayed on the display apparatus 11. The display areas 300 and 310 are examples of the image displayed by the chat system 30. Since display areas 300 and 310 are connected to the service offering users of the two chat systems, two windows on the display area 300 are displayed by the chat system 30. The chat system 30 is connected to the IRC network A, and the display area 310, also displayed by the chat system 30, is similarly connected to the IRC network B and

displayed on the display apparatus 11. In this example, the IRC network is defined as a logical network formed in units of services offered to users of the chat system 30, and is different from a physical network.

Additionally, a plurality of channels exist as the common communication fields within each IRC network. The common communication field is hereinafter referenced to as a "channel".

The display areas 300 and 310 of the chat system 30 include tool bar display areas 300-1 and 310-1, respectively, for instructing, for example, various manipulations of the displayed date with a pointing device 12, channel switching instructing areas 300-2 and 310-2 for switching the channel for sending a message, main-channel display areas 300-3 and 310-3 for displaying a message transmitted and/or received by the channel (hereinafter referred to as a main-channel) for sending a message, message input areas 300-5 and 310-5 for transmitting a message to the main channel, user list display areas 300-4 and 310-4 for displaying a list of users connected to the main-channel, sub-channel display areas 300-6 and 310-6 for displaying the contents of a message transmitted and/or received by other channels (hereinafter referred to as a sub-channel) designated by a user and channel list display areas 300-7 and 310-7 for displaying a list of the main-channel and sub-channel designated by the user.

The display area 200 is an example of an image displayed by the message display means 20. In this case, the messages transmitted and/or

received in the channel #abc and #road of the IRC network A and #kobe, #1ab and #test of the IRC network B, connected in the chat system 30 by users, are displayed on a time series basis.

Below is a description of the process for displaying the transmission and receipt of messages by a plurality of channels using the chat system 30, by the message display means 20.

First, the setting process for operating the message display means 20 and chat system 30 concurrently will be explained. When the message display means 20 is started, the cooperation request transmitting means 21 is driven (step S2100 of Fig. 3) to send (step S2101 of Fig. 3) a cooperation request (for example, a command called REPORT-MESSAGE) to the chat system 30. The request receiving means 31, of the chat system 30, determines whether it is the cooperation request from the message display means 20. When the request receiving means 31 determines that it is the cooperation request (for example, a command called REPORT-MESSAGE)(YES in the step S3101 in Fig. 4), the cooperation flag of the setting information storing memory 35 is validated (step S3102 of Fig. 4). Hence, a path for automatically transmitting the contents of the message transmitted and/or received by the chat system 30 is extended between the chat system 30 and message display means 20. Thereafter, the message received by the message receiving means 33, of the chat system 30, and the message transmitted by the message transmitting means 34 are also notified to the message display means 20 via the message notifying means 32.

In this example, a message is transmitted from a user terminal 10 in the chat system 30. The contents of the message transmitted are sent to the network together with the IRC network name, the channel name and the name of the message transmitting user transmitted by the relevant user for addressing users who are participating in the same channel. This system is, however, only an exemplary embodiment of the chat system 30.

Upon reception of a message, the message receiving means 33 displays the contents of the message to the main-channel display area 300-2 or the sub-channel display area 300-6, and notifies the message display means 20 via the message notifying means 32, that the message has been received.

The notified message receiving means 22, of the message display means 20, monitors whether a message is notified from the chat system 30 (step S2201 of Fig. 5). When notification of the message is confirmed (YES in the step S2201 of Fig. 5), the message is displayed via the display processing means 23 (step S2203 of Fig. 5).

The display processing means 23 processes the message received, via the notified message receiving means 22, in a format desired by the user (step S2301 of Fig. 6). The message is then output to the display apparatus 11. Several methods may be used to process the message, as described below.

In a first method, the received message is composed of the IRC network name, the channel name, the user name (or nickname), the message issuing time and the message content. Only the

user name and the message contents, among the factors explained above, are displayed by selecting the display items. Therefore, the width of the display area 200 can be reduced, resulting in the reduction of the total display area of the display apparatus 11. When the chat system 30 and other applications are used simultaneously, the display area, by operation of the other applications, can be enlarged, simplifying the operation of other applications.

In yet another method, messages are conditionally displayed from other messages. Conditionally displayed is defined as visually displaying the message meeting the condition from the messages being displayed on a time series basis. For example, if a font is changed in a message such that it is different from the font in other messages, a message is displayed by flickering or inversely displaying the message.

A keyword may be included in the message and set as a word item. For example, the IRC network name, the channel name, the user name (nickname), a desired character string designated by the user and a message issuing time. In this regard, a user can register the keyword included in the message such that it is displayed separately from the other messages. The message is also registered to the setting information storing memory 25 of the message display means 20. When the main-message is notified from the chat system 30, it is determined whether the keyword registered in the setting information storing memory 25 is included in the message. When the keyword is included in the message, the message is

edited based on the designated display method, and is displayed on the display apparatus 11.

It is also possible to display the last 10 lines, or within a particular time period, to distinguish from the other messages.

Hence, a use can designate which message should be displayed on the display area 200 for easy access.

In still another method, messages to be displayed can be freely selected.

Selection of messages may, for example, be conducted on the basis of a keyword included in the message. For example, the IRC network name, the channel name, the user name (nickname) and a desired character string designated by a user may be listed as the keyword. A user is recommended to register the keyword in the message as a display object, prior to setting information storing memory 25 of the message display means 20. When the message is received from the chat system 30, a user is able to check whether the keyword registered to the setting information storing memory 25 is included in the message. When the keyword is included in the message, a user can edit the message and display it on the display apparatus 11. Since the message contents of all channels connected by a user are notified from the chat system 30, and then displayed at a specified time, the amount of messages notified increases proportionally to the number of channels connected. Through the selective display of messages, only the messages with which a user is interested are displayed, reducing congestion on the display area 200.

The setting information in the setting information storing memory 25 validates a cooperation flag in the chat system 30, when the cooperation request is transmitted from the message display means 20. The setting information transmits the contents of the setting information storing memory 25, registered in the chat system 30, to the message display means 20. Hence, the received information is stored in the setting information storing memory 25 in the message displaying means 20. Otherwise, the setting means is provided in the message display means 20 in order to designate the processing method at the time of displaying the message, independent of the chat system 30.

Accordingly, when a user is utilizing the chat system 30 by extending the connections to a plurality of channels, messages of all channels connected may be displayed on a time series basis, on the same display area.

The procedures for sending the message to a channel to which the message is transmitted, by utilizing the contents of the message displayed in the same display area, will now be explained.

First, a method for switching the main channel of the display area 300 of chat system 30 to the channel of the message, and then transmitting the message from the message input area 300-5, by instructing the message content displayed on the display area 200, will be explained as an example.

In this example, it is assumed that the image in Fig. 7 is displayed on the display apparatus 11 of a particular user terminal 10,

from the message display means 20 and chat system 30. The user is connected to the channels #test and #kobe of the IRC network A, and the channels #road and #abc of the IRC network B. The contents of the messages of these channels are displayed on a time series basis in the display area 200. In the display area 300, only the operation image of the chat system 30, connected to the IRC network B, is actively displayed. In the time series basis, the channel #road is designated as the main-channel. The display image of the chat system 30, connected to the IRC network A, is activated for display by receiving an instruction from the user or another application.

In this example, it is also assumed that the user is interested in the message displayed in the second lowest line among the messages displayed in the display area 200, and that he/she is trying to transmit a message using a specified channel.

The user identifies the message of the display area 200 using, for example, a pointing device, and performs, for example, a double-click on the mouse (a double-click on the mouse is only an example, a key operation is also possible). Upon detection of a double-click as the switching instruction to the chat system 30(YES in the step S2410 in Fig. 9), the message transmission processing means 24 analyzes the contents of the identified message to obtain (step S2411 of Fig. 9) the IRC network name (IRC network B) and channel name (#abc). Using the IRC network name and channel name obtained, the message transmission processing means 24 generates the main-channel switching instruction (for example, a

join command), and transmits this instruction to the chat system 30 (step S2412 of Fig. 9). The chat system 30 switches, upon reception of the main-channel switching instruction transmitted from the message display means 20, the main-channel of the chat system 30 connected to the IRC network (IRC network B) and transmits the switching instruction to the channel (#abc) together with the switching instruction.

Fig. 8 illustrates a condition after switching has occurred. The channel name (#abc) transmitted is set to the channel switch instructing area 300-2, and the contents of main-channel display area 300-3 are also switched to the display of the message contents in the channel (#abc). The contents of channel (#road), which is displayed on the main-channel display means in Fig. 7, is then displayed on sub-channel display area 300-6. In this case, when the display areas 300 and 310 of the chat system 30, to which the relevant IRC network is connected, are not activated, the display area is activated.

The display image of the chat system 30 (which is ready for transmitting a message to the channel), in which the message is issued, is automatically displayed by instructing the message displayed on the message display means 20. Accordingly, a user can immediately transmit a message to the relevant channel.

Another method for transmitting a message directly to the display area 200 will now be explained.

Fig. 10 illustrates an example when the display area of the chat system 30 is not

activated, and the display area 200 of the message display means 20 is activated.

In this example, it is assumed that a message is transmitted directly from the message display area 200 to the channel in which the message is displayed at the second lowest line.

A user can identify the message of the display area 200 with, for example, a pointing device, and simultaneously depress, for example, a control key on a keyboard and a click of the right button of a mouse (the key operation is also an example, and depression of another key is also possible). Upon detection that the control key and click of the right button of the mouse has occurred simultaneously (as the instruction for switching the display of message window) (YES in the step S2420 of Fig. 9), the message transmission processing means 24 displays (step S2421 of Fig. 9) the message window 210 (Fig. 11) to the display area 200. The user then inputs the contents of the message to be transmitted to the message window 210 being displayed. When input of the contents of the message is completed (YES in the step S2422 of Fig. 9), the user obtains the IRC network name (IRC network B) and the channel name (#abc) by analyzing the message instructed and generates a message transmitting instruction (for example, a privmsg command) from the user name (nickname, and inputs the message contents and transmits instruction to the chat system 30.

Upon receipt of the message transmitting instruction from the message display means 20, the chat system 30 sends the message contents to the channel of the IRC network.

Hence, it is possible to send a direct message to the channel where the message exists, by instructing a message displayed by the message display means 20.

In another embodiment, it is a precondition that all messages transmitted and/or received by the chat system 30 are notified to the message display means 20, while still being able to identify the cooperated IRC network and channel. In this case, the cooperation request transmitting means 30 displays an image urging users to designate the cooperated IRC network name and the channel name. The cooperation request transmitting means 30 then notifies the chat system 30, and the channel name designated by user, of the IRC network name. The request receiving means 31, of the chat system 30, registers the notified IRC network name and the channel name to the setting information storing memory 35. Thereafter, the message receiving means 33, or message notifying means 32, judges when the message is received, the IRC network and channel to which the message is transmitted and notifies the message to the message display means 20 via the message notifying means 32 for those considered as the cooperation object. Thereby, selection of messages can be conducted using the IRC network name and the channel name as the keyword.

It is also assumed in this embodiment that a processing method is set in the message display means 20 at the time of displaying a message. However, it is also possible that this function is given such that the message display means 20 can

receive a message when it is processed by the chat system 30 to a predetermined display mode, and then displayed directly to the display area 200 of the message display means 20.

According to the information exchange system of the present invention, in which users can transmit and/or receive messages via a plurality of networks, even when the number of networks connected by users increases, contents of messages can be consolidated to the same area to minimize the area to display the messages in the information exchange system, thereby allowing users to perform a plurality of operations effectively while exchanging information with other users through the user terminals by expanding the operation area of other applications on the display apparatus.

Moreover, since it is now possible to transmit a message directly to the network where the message exists by instructing the messages centralized for display, a user is not required to intentionally switch the processed images of the message display means and a basic function of the information exchange system and manipulation efficiency at the time of sending the message is therefore improved.

In this disclosure, there is shown and described only the preferred embodiment of the invention, but, as aforementioned, it is to be understood that the invention is capable of use in various other combinations and environments and is capable of changes or modifications within the scope of the invention concept as expressed herein.

What is claimed is:

1. A method of displaying messages in an information exchange system for transmitting and receiving the messages through at least one network having user terminals connected to the at least one network, comprising:

obtaining one of the messages to be transmitted or received from the at least one network; and

displaying the obtained message in a time series basis independent of the messages on another of the at least one network.

2. An information exchange system in which user terminals are configured for connection to a plurality of networks to transmit and receive messages through the plurality of networks, the user terminals having a message display area displaying messages transmitted and received to/from each of the plurality of networks, comprising:

message acquiring means for acquiring messages transmitted and received to/from the plurality of networks; and

message displaying means for displaying, on a time series basis, the messages acquired independent of the message display area of each of the plurality of networks.

3. An information exchange system in which user terminals are configured for connection to a plurality of networks to transmit and receive messages through the plurality of networks, the user terminals having a message display area displaying messages transmitted and received to/from each of the plurality of networks, comprising:

message acquiring means for acquiring messages transmitted and received to/from the plurality of networks;

message displaying means for displaying, on a time series basis, the messages acquired independent of the message display area of each of the plurality of networks;

message transmission cooperating means for transmitting one of the messages, when the message displayed by said message displaying means is identified for message transmission, to one of the networks in the plurality of networks to which said identified message is transmitted.

4. A storage medium having a program recorded thereon for executing an information exchange on a plurality of networks, the program to be executed by a computer verifying a user terminal is connected to a network to transmit and/or receive the messages through the network and assuring recordation thereon, the program in the storage medium comprising:

executing connection of the user terminal on

a plurality of networks for common message exchange and displaying the message transmitted and/or received for each of the plurality of networks;

acquiring messages to be transmitted and/or received on the plurality of networks; and

displaying , on a time series basis, said acquired messages to an area independent of the message display area of each of said plurality of networks.

5. A storage medium having a program recorded thereon for executing an information exchange on a plurality of networks, the program to be executed by a computer verifying a user terminal is connected to a network to transmit and/or receive the messages through the network and assuring recordation thereon, the program in the storage medium comprising:

executing connection of the user terminal on a plurality of networks for common message exchange and displaying the message transmitted and/or received for each of the plurality of networks;

acquiring messages to be transmitted and/or received on the plurality of networks;

displaying , on a time series basis, said acquired messages to an area independent of the message display area of each of said plurality of networks; and

transmitting a message, when the message displayed is identified for message transmission, to the network to which said identified message is transmitted.

6. An information exchange system including user terminals connected via a plurality of networks, enabling communication between the terminals, comprising:

a first unit transmitting and receiving messages to/from terminals on a realtime basis; and

a display unit, displaying the messages transmitted and received to an area independent of a display area for each network, operated concurrently with the first unit.

7. The information exchange system of claim 6, the first unit further including:

a message receiving/transmitting unit controlling message transmission/reception;

a first memory storing an operation condition;

a request receiving unit executing processes based on transmitted requests; and

a request notifying unit transferring the message received.

8. The information exchange system of claim 7, the display unit further comprising:

a cooperation request transmitting unit transmitting and receiving setting information required for operating the first unit and the display unit concurrently;

a notified message receiving unit receiving a message transmitted from the notifying unit and displaying the message on a display;

a message display unit displaying a message

a message transmission unit operating with the first unit when a user responds to a message including the contents of the message displayed on the message display unit; and

a second memory storing validating a cooperation flag in the setting information, when a cooperation request is transmitted from the message display unit.

9. An information exchange system including user terminal connected via a plurality of networks, enabling communication between the terminals, comprising:

a first unit transmitting and receiving messages to/from terminals on a realtime basis; and

a transmission cooperating unit transmitting

one of the messages, when the message displayed is identified for message transmission, to one of the networks to which the identified message is transmitted.

10. A method of displaying messages in an information exchange system including user terminals connected via a plurality of networks, enabling communication between the terminals, comprising:

transmitting and receiving messages to/from terminals on a realtime basis; and

displaying the messages transmitted and received to an area independent of a display area for each network, wherein transmitting and receiving and displaying operatively occurs concurrently.

11. A method of displaying messages in an information exchange system including user terminal connected via a plurality of networks, enabling communication between the terminals, comprising:

transmitting and receiving messages to/from terminals on a realtime basis; and

identifying one of the messages, when the message is displayed, identified for message transmission, to one of the networks to which the identified message is transmitted.

12. A method of displaying messages in an information exchange system including user terminal connected via a plurality of networks, enabling communication between the terminals, comprising:

transmitting and receiving messages to/from terminals on a realtime basis; and

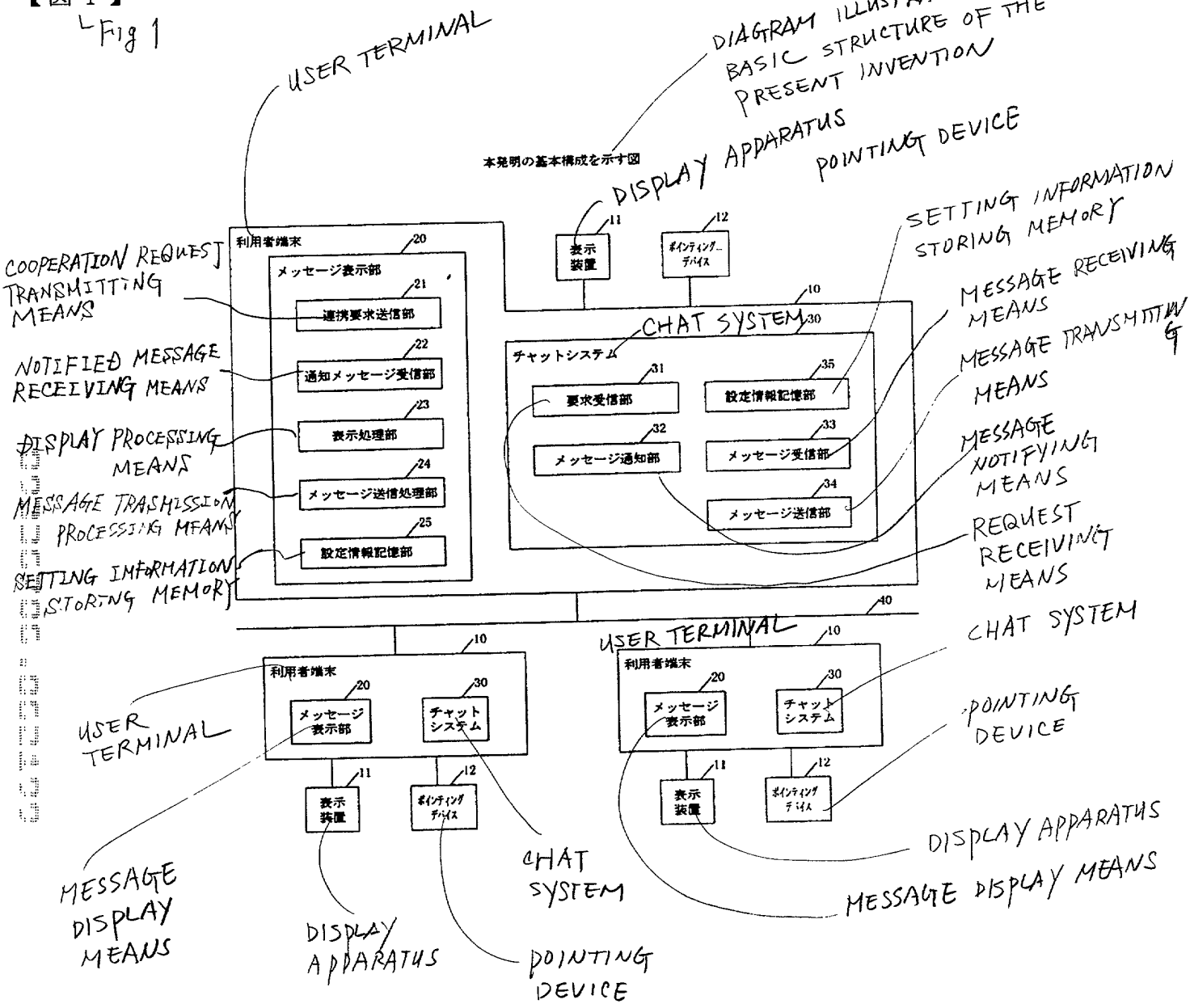
identifying one of the messages, when the message is displayed, identified for message transmission, to one of the networks to which the identified message is transmitted.

Abstract of the Disclosure

In an information exchange system in which a user terminal is connected to a network, the system is capable of transmitting and/or receiving messages via the network. A display area displaying messages transmitted and/or received can be increased with an increase in the number of networks connected, thereby causing the efficiency of processes due to reduction of the display area to deteriorate when such a display area is used simultaneously with other applications. The present invention reduces the display area by centralizing messages transmitted and/or received by each network, and displays these messages to an independent area on a time series basis. The system also enables transmission of messages to the network, to which the relevant message is transmitted, by identifying the message centralized for display. As a result, manipulation efficiency of the information exchange system is improved.

【書類名】　図面　[Title of document] Drawings

【図１】 Fig 1

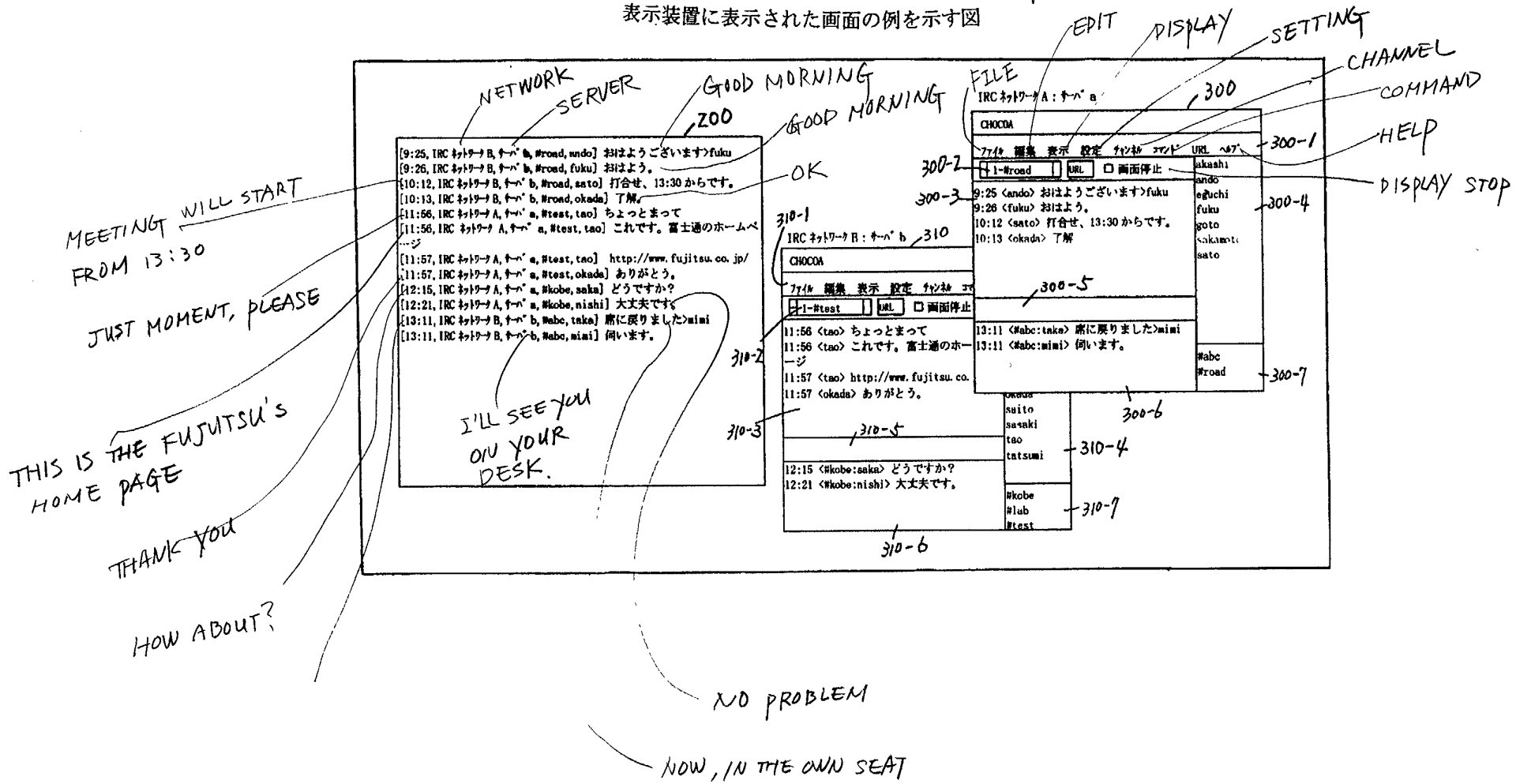


【図２】

Fig 2

表示装置に表示された画面の例を示す図

DIAGRAM ILLUSTRATING AN EXAMPLE OF IMAGE DISPLAYED ON THE DISPLAY APPARATUS



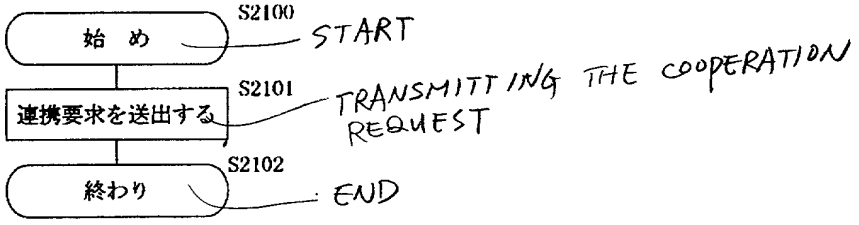
整理番号９８－９０３５１　頁　－２－

【図３】

Fig 3

FLOWCHART ILLUSTRATING CONTENT OF PROCESS OF COOPERATION REQUEST TRANSMITTING MEANS

連携要求送信部の処理の内容を示すフローチャート

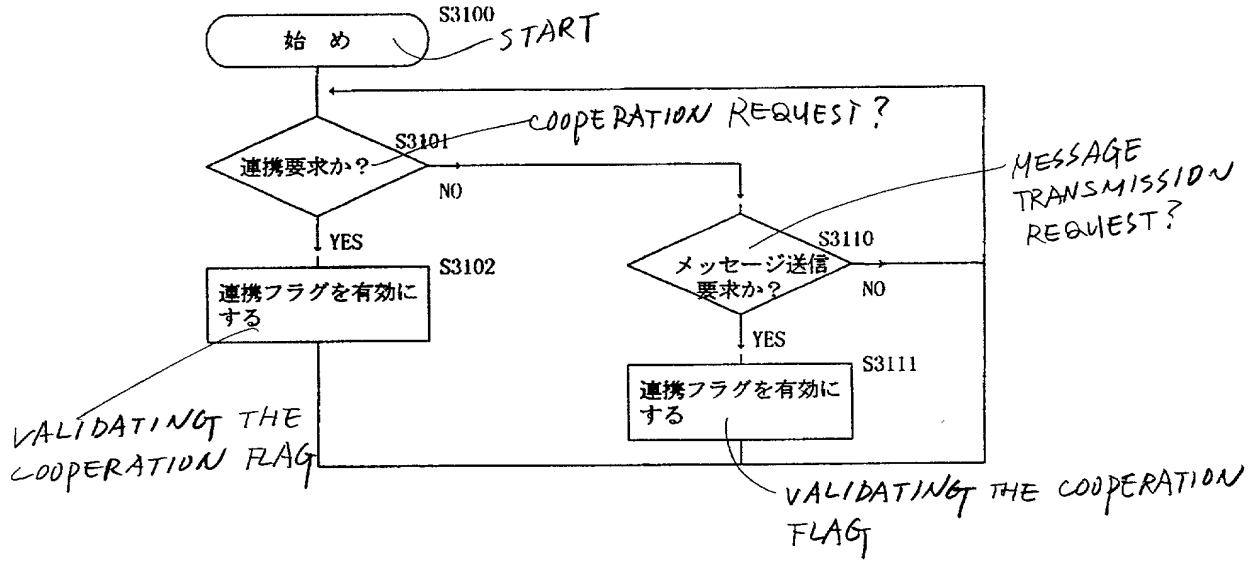


【図４】

Fig 4

FLOWCHART ILLUSTRATING CONTENT OF PROCESS OF THE REQUEST RECEIVING MEANS

要求受信部の処理の内容を示すフローチャート

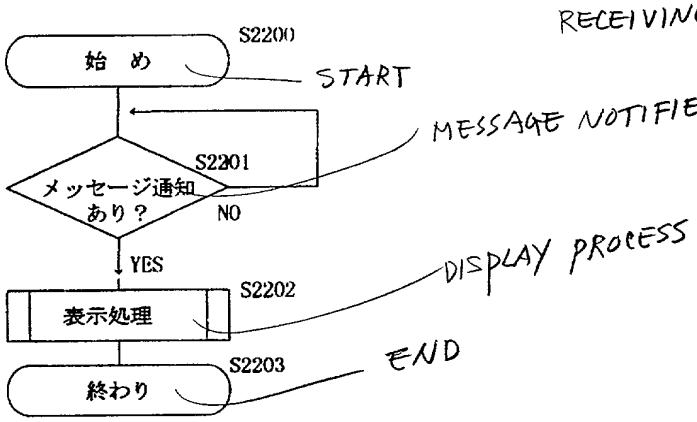


【図５】

Fig 5

FLOWCHART ILLUSTRATING CONTENT OF PROCESS OF THE NOTIFIED MESSAGE RECEIVING MEANS

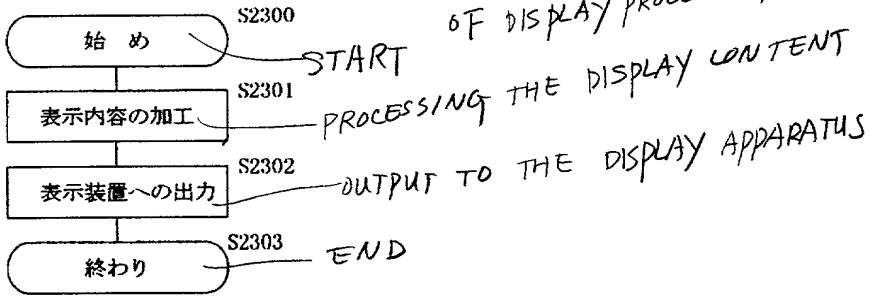
通知メッセージ受信部の処理の内容を示すフローチャート



【図６】

Fig 6

表示処理部の処理の内容を示すフローチャート FLOWCHART ILLUSTRATING CONTENT OF PROCESS OF DISPLAY PROCESSING MEANS

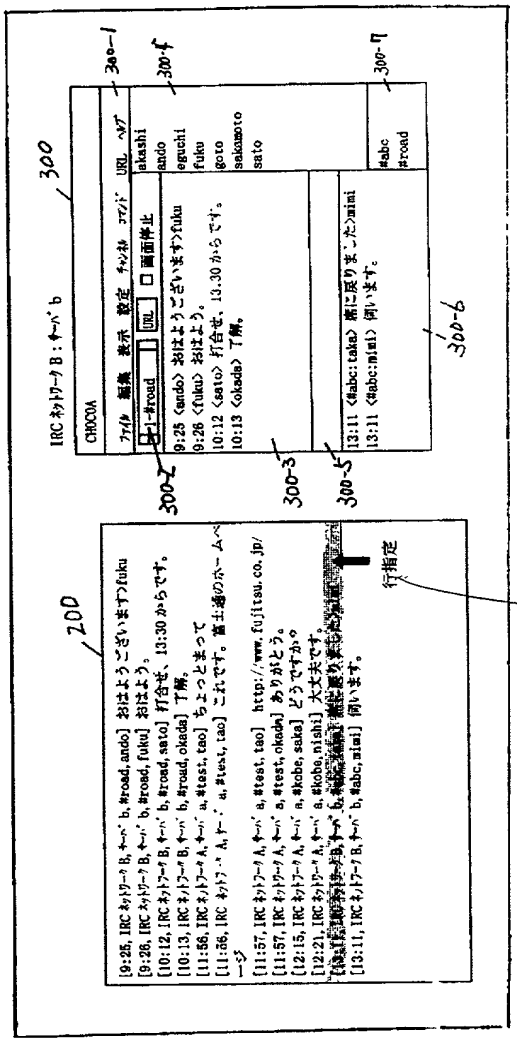


【図７】

Fig 7

DIAGRAM ILLUSTRATING AN EXAMPLE OF DISPLAY IMAGE IN THE FIRST EMBODIMENT FOR INSTRUCTING MESSAGE TRANSMISSION

メッセージ送信の指示を行う第１の実施例における表示画面の例を示す図（その１）

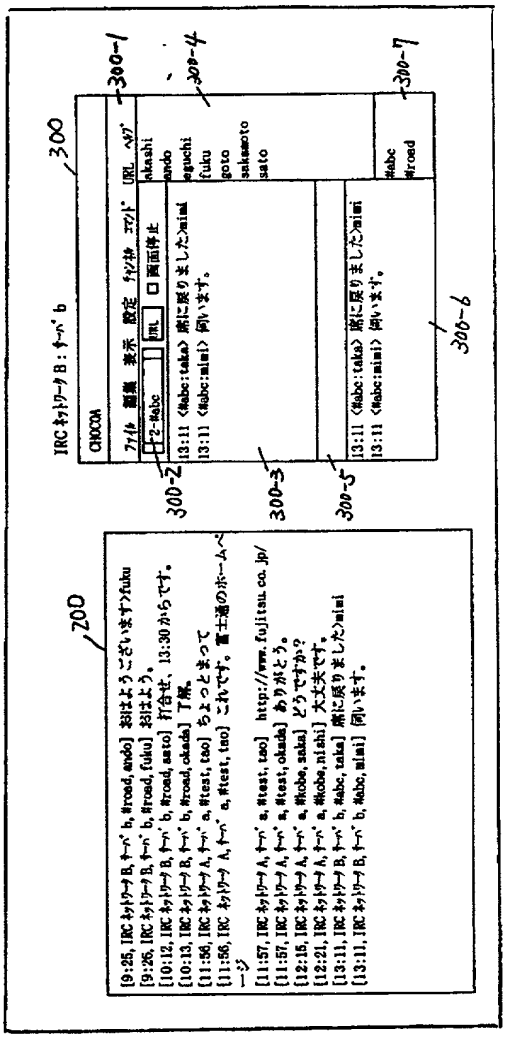


【図８】

Fig 8

メッセージ送信の指示を行う第１の実施例における表示画面の例を示す図（その２）

DIAGRAM ILLUSTRATING AN EXAMPLE OF DISPLAY IMAGE IN THE FIRST EMBODIMENT FOR INSTRUCTING MESSAGE TRANSMISSION

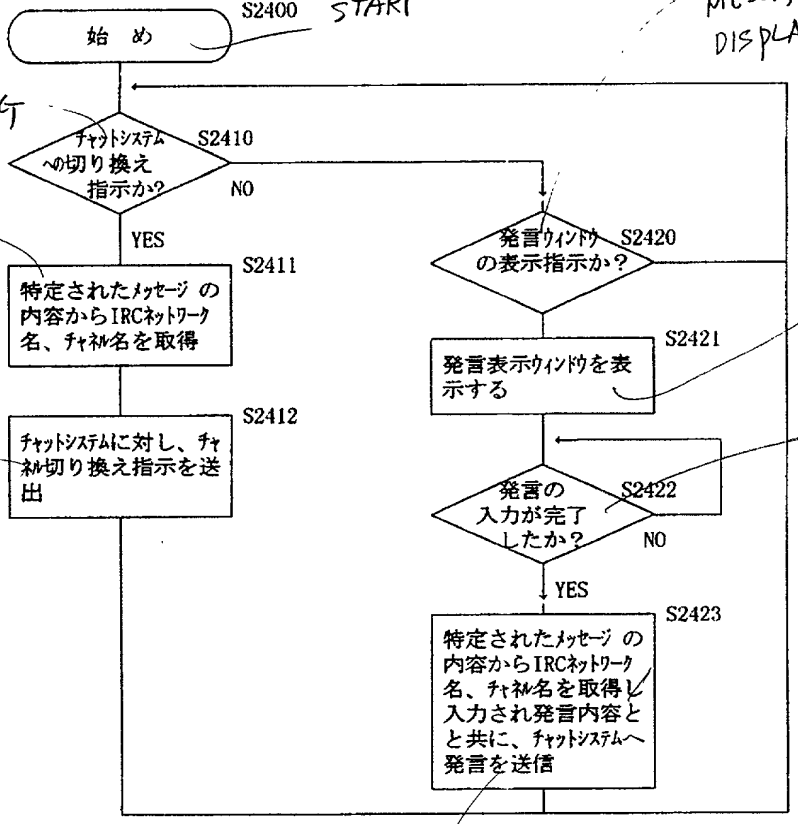


【図９】

Fig 9

FLOWCHART ILLUSTRATING CONTENT OF PROCESS OF THE MESSAGE TRANSMISSION PROCESSING MEANS

メッセージ送信処理部の処理の内容を示すフローチャート



INSTRUCTION FOR SWITCHING TO THE CHAT SYSTEM

MESSAGE WINDOW DISPLAY INSTRUCTION?

OBTAINING IRC NETWORK NAME, CHANNEL NAME FROM CONTENT OF THE IDENTIFIED MESSAGE

DISPLAYING THE MESSAGE DISPLAY WINDOW

MESSAGE INPUT IS COMPLETED?

TRANSMITTING THE CHANNEL SWITCHING INSTRUCTION TO THE CHAT SYSTEM

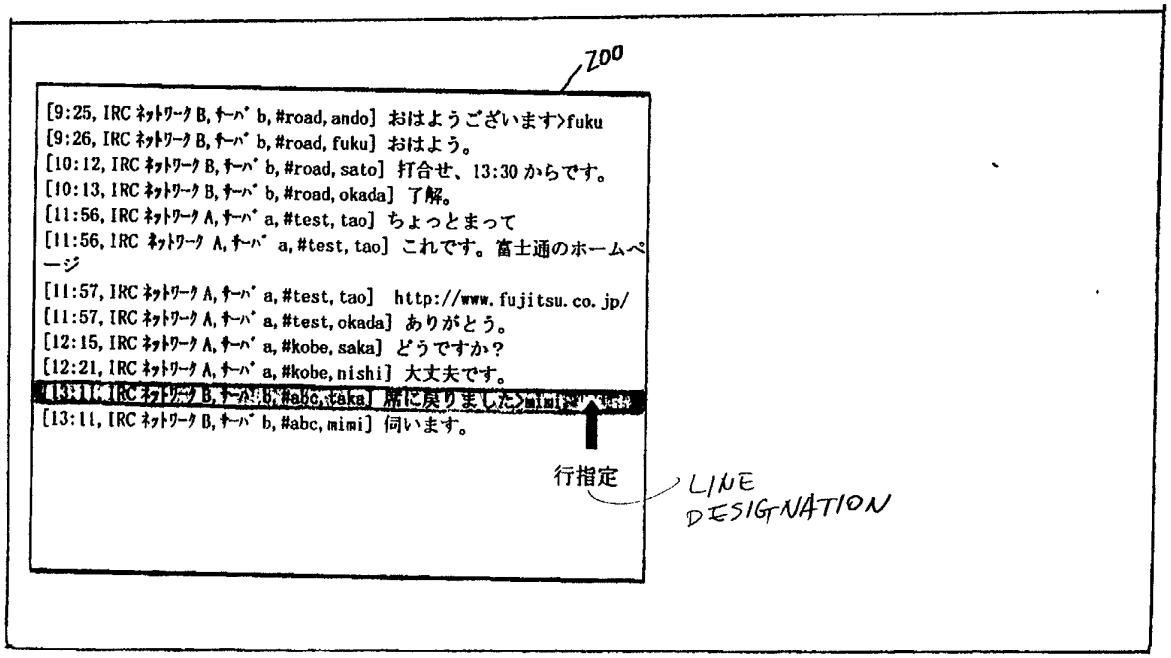
OBTAINING THE IRC NETWORK NAME, CHANNEL NAME FROM THE CONTENT OF THE IDENTIFIED MESSAGE AND TRANSMITTING THESE NAMES TO THE CHAT SYSTEM TOGETHER WITH THE INPUT MESSAGE CONTENT.

【図１０】

Fig 10

DIAGRAM ILLUSTRATING AN EXAMPLE OF DISPLAY IMAGE IN THE SECOND EMBODIMENT FOR INSTRUCTING MESSAGE TRANSMISSION

メッセージ送信の指示を行う第２の実施例における表示画面の例を示す図（その１）

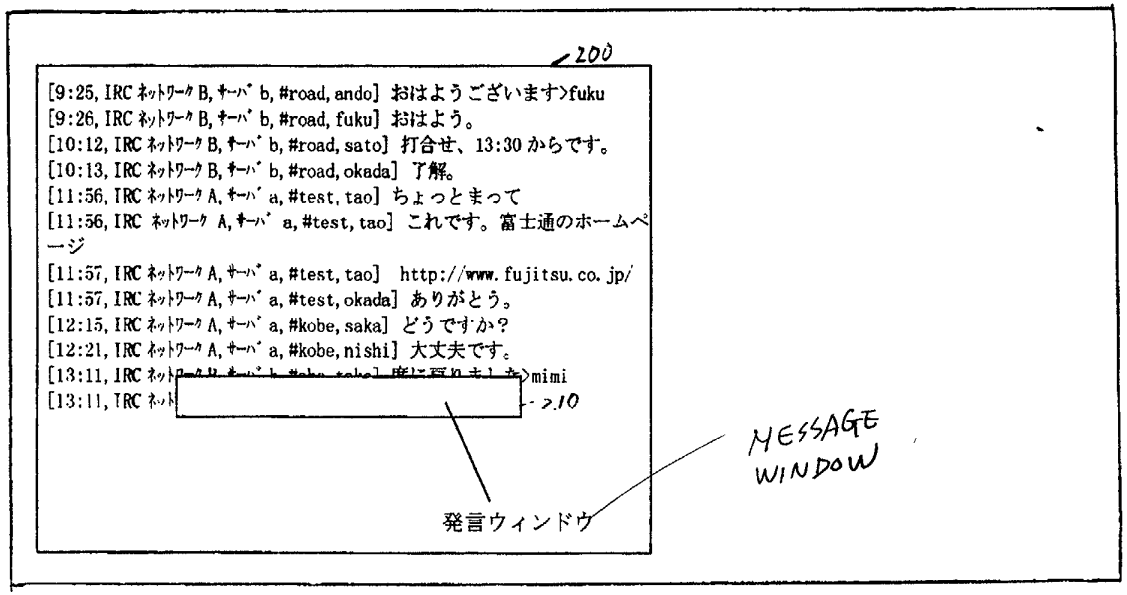


【図１１】

Fig 11

DIAGRAM ILLUSTRATING AN EXAMPLE OF DISPLAY IMAGE IN THE SECOND EMBODIMENT FOR INSTRUCTING MESSAGE TRANSMISSION

メッセージ送信の指示を行う第２の実施例における表示画面の例を示す図（その２）



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Japanese Language Declaration

日本語宣言書

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As a below named inventor, I hereby declare that:

私の住所、私書箱、国籍は下記の私の氏名の後に記載された通りです。

My residence, post office address and citizenship are as stated next to my name.

下記の名称の発明に関して請求範囲に記載され、特許出願している発明内容について、私が最初かつ唯一の発明者（下記の氏名が一つの場合）もしくは最初かつ共同発明者であると（下記の名称が複数の場合）信じています。

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

MESSAGE DISPLAY METHOD AND INFORMATION EXCHANGE SYSTEM AND STORAGE MEDIUM

上記発明の明細書（下記の欄でx印がついていない場合は、本書に添付）は、

the specification of which is attached hereto unless the following box is checked:

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☐ was filed on _____
as United States Application Number or
PCT International Application Number
_____ and was amended on
_____ (if applicable).

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Prior Foreign Application(s)
外国での先行出願

(Number) (番号)	(Country) (国名)	(Day/Month/Year Filed) (出願年月日)	Priority Not Claimed 優先権主張なし
10-237340	Japan	August 24, 1998	☐
			☐

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(Application No.) (出願番号)	(Filing Date) (出願日)	(Status: Patented, Pending, Abandoned) (現況：特許許可済、係属中、放棄済)

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Staas & Halsey
Customer No.: 21,171

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith *(list name and registration number)*

Staas & Halsey
Customer No.: 21,171

書類送付先

H.J. Staas
Staas & Halsey
700 Eleventh Street, N.W.
Suite 500
Washington, D.C. 20001

Send Correspondence to:

H.J. Staas
Staas & Halsey
700 Eleventh Street. N.W.
Suite 500
Washington, D.C. 20001

直接電話連絡先： （名前及び電話番号）

Telephone: 202-434-1500
Facsimile: 202-434-1501

Direct Telephone Calls to: *(name and telephone number)*

Telephone: 202-434-1500
Facsimile: 202-434-1501

唯一または第一発明者名	Full name of sole or first inventor Sumiyo OKADA
発明者の署名 日付	Inventor's signature Date Sumiyo Okada June 14, 1999
住所	Residence Akashi-shi, Hyogo JAPAN
国籍	Citizenship Japan
私書箱	Post Office Address c/o FUJITSU LIMITED, 1-1, Kamikodanaka 4-chome, Nakahara-ku,
	Kawasaki-shi, Kanagawa 211-8588 Japan
第二共同発明者	Full name of second joint inventor, if any Masahiko MURAKAMI
第二共同発明者 日付	Second inventor's signature Date Masahiko Murakami June 14, 1999
住所	Residence Kobe-shi, Hyogo JAPAN
国籍	Citizenship Japan
私書箱	Post Office Address c/o FUJITSU LIMITED, 1-1, Kamikodanaka 4-chome, Nakahara-ku,
	Kawasaki-shi, Kanagawa 211-8588 Japan

（第三以降の共同発明者についても同様に記載し、署名をすること）

(Supply similar information and signature for third and subsequent joint inventors.)

第三共同発明者		Full name of third joint inventor, if any Yasuhide MATSUMOTO
第三共同発明者	日付	Third inventor's signature Date Yasuhide Matsumoto June 14, 1999
住　所		Residence Akashi-shi, Hyogo Japan
国　籍		Citizenship Japan
私書箱		Post Office Address c/o FUJITSU LIMITED, 1-1, Kamikodanaka 4-chome, Nakahara-ku,
		Kawasaki-shi, Kanagawa 211-8588 Japan
第四共同発明者		Full name of fourth joint inventor, if any Hideto KIHARA
第四共同発明者	日付	Fourth inventor's signature Date Hideto Kihara June 14, 1999
住　所		Residence Akashi-shi, Hyogo Japan
国　籍		Citizenship Japan
私書箱		Post Office Address c/o FUJITSU LIMITED, 1-1, Kamikodanaka 4-chome, Nakahara-ku,
		Kawasaki-shi, Kanagawa 211-8588 Japan

第五共同発明者		Full name of fifth joint inventor, if any
第五共同発明者	日付	Fifth inventor's signature Date
住　所		Residence
国　籍		Citizenship
私書箱		Post Office Address
第六共同発明者		Full name of sixth joint inventor, if any
第六共同発明者	日付	Sixth inventor's signature Date
住　所		Residence
国　籍		Citizenship
私書箱		Post Office Address

（第七以降の共同発明者についても同様に記載し、署名をすること）

(Supply similar information and signature for seventh and subsequent joint inventors.)